



Department of Transportation

ENGINEERING
BULLETIN

EB
22-056

Title: **NYSDOT HYDRAULIC VULNERABILITY MANUAL 2022**

Approved:

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10-24-22

Date

Expires one year after issue unless replaced sooner

ADMINISTRATIVE INFORMATION:

- Effective Date: This Engineering Bulletin (EB) is effective upon signature.
- Superseded Issuances: This EB does not supersede any other issuance.
- Superseded Shelf Notes/Special Notes: This EB does not supersede any Shelf/Special Notes.
- Disposition of Issued Materials: The Hydraulic Vulnerability Manual and supporting documents will be available at:
<https://www.dot.ny.gov/divisions/engineering/structures/manuals/hydraulics>.

PURPOSE: To announce availability of the NYSDOT Hydraulic Vulnerability Manual 2022.

TECHNICAL INFORMATION:

- The Hydraulic Vulnerability Manual 2022 replaces the Hydraulic Vulnerability Manual 1992 and all revisions in its entirety.
- Minimal cost impacts are anticipated.
- Reorganization, reference updates, typographical or formatting corrections, and other minor edits were made throughout the manual. A list of the more notable changes is included at the end of this document.
- Appendix B – Supersedes TA 18-001 - *FHWA Item 113 Scour Critical Rating (SCR) Code for Bridge Sized Structures*.

IMPLEMENTATION: Upon implementation of the updated Bridge Data Information System (BDIS) Structures Manager Module within the Enterprise Asset Management System (EAM), the 2022 Hydraulic Vulnerability Manual (HVM) is effective.

Enterprise Asset Management System (EAM) is updated to accept the changes within the HVM. All future HVA requests shall be completed using the new methodology and scoring system.

TRANSMITTED MATERIALS: None. The 2022 HVM is available electronically at:
<https://www.dot.ny.gov/divisions/engineering/structures/manuals/hydraulics>

CONTACT: Direct questions regarding this issuance to Derek Intschert of the Hydraulics Engineer Unit at 518-485-8566 or via e-mail at Derek.Intschert@dot.ny.gov.

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Notable Changes (Minor revisions not listed)

Section 1 – General

- Minor Changes

Section 2 - Screening

- The screening process is completely removed from this manual

Section 3 – Classifying

- Increase in the stream channel variable scores to address bridge foundation and bridge approach scour vulnerabilities
- Changes in stream channel variable scores to account for the installation of scour countermeasures
- New chapter on culvert type bridge structure scour vulnerabilities

Section 4 - Hydraulic Vulnerability Rating

- Minor changes

Section 5 - Scour Critical Rating & Plan Of Action (POA)

- Completely new section covering FHWA NBI Item 113 Scour Critical Code (SCR)
- Structures requiring POA's
- POA documentation

Section 6 – Flood-Watch Program

- Minor changes

Section 7 - Post Flood Inspections

- Minor changes

Section 8 - Hydraulic Analysis

- Minor Changes

Section 9 - Protective Countermeasures

- Minor Changes

Appendix B - NYSDOT 113 Code, Additional Guidance

- Supersedes TA 18-001